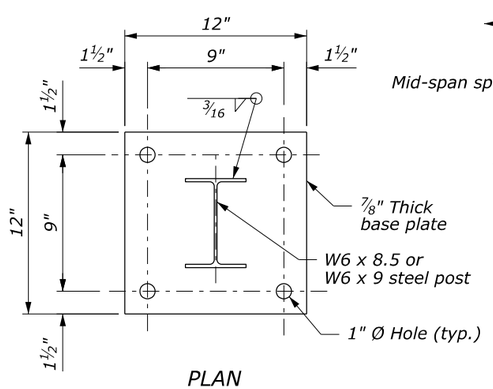
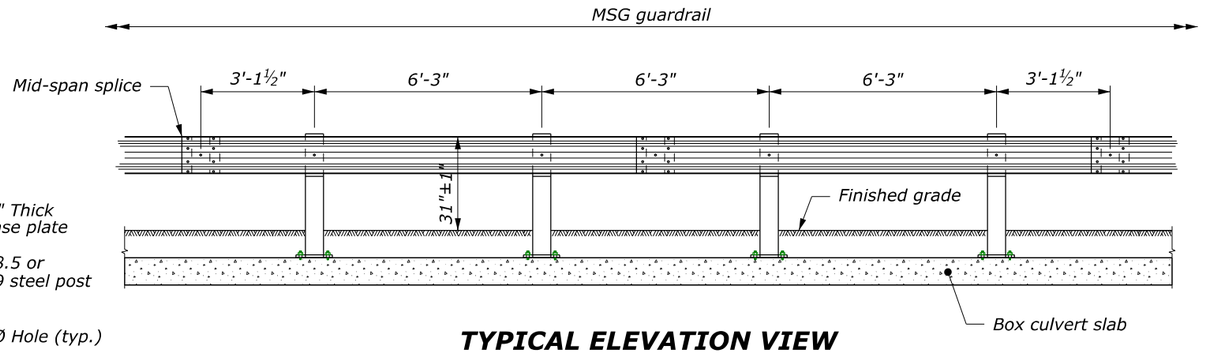
| STATE | PROJECT | SHEET NUMBER |
|---|---|---|
| ST | PROJECT NUMBER<br>PROJECT NAME | |



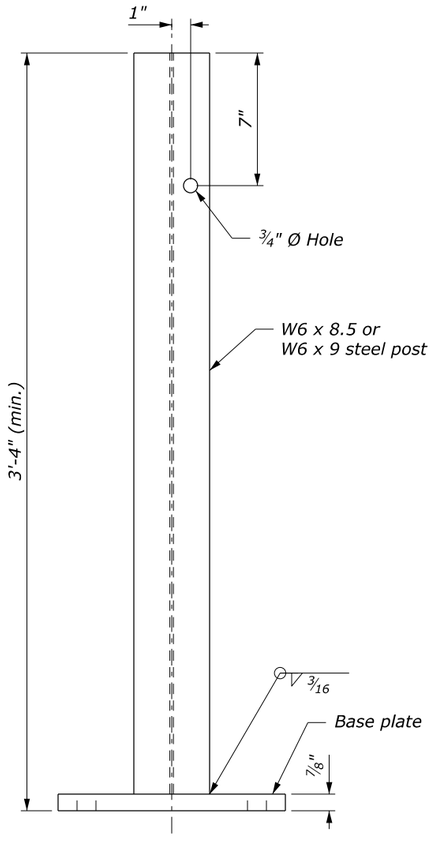

PLAN




**TYPICAL ELEVATION VIEW**

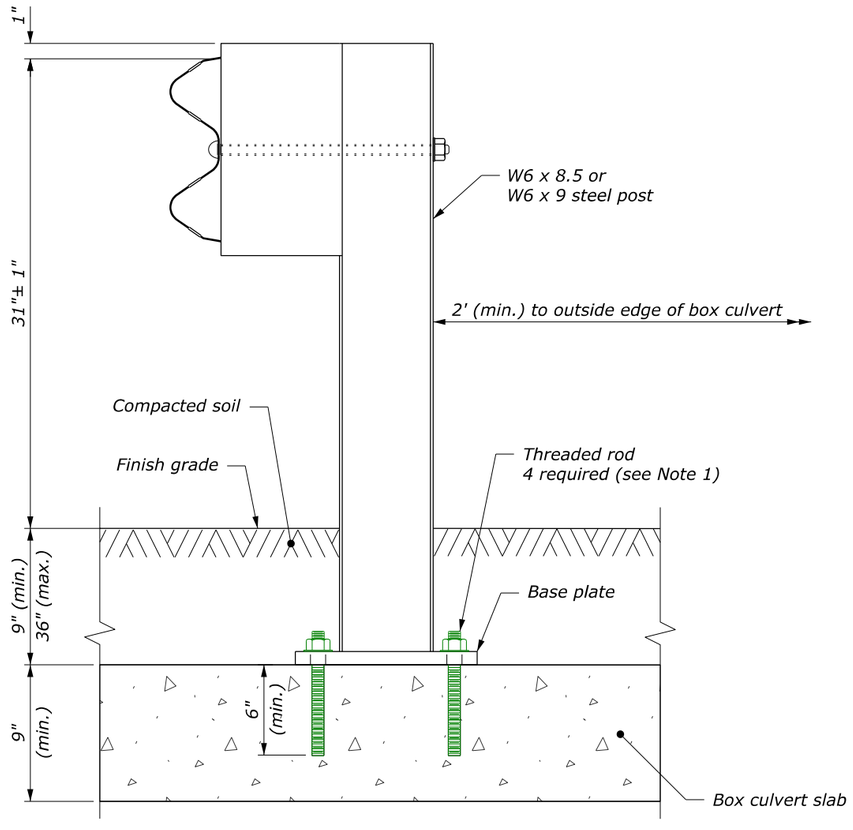
## NOTE:

1. Attach guardrail post to box culvert with 7/8-inch diameter high-strength threaded rods 8½-inch in length with resin-bonded anchors. Use carbon steel rods with a minimum strength of 125 ksi and a minimum yield strength of 105 ksi. Rods, nuts, and washers have an electroplated zinc coating.
2. Wood blocks are shown. Blocks of an approved alternative may be used.
3. See Detail C617-32 for other details.

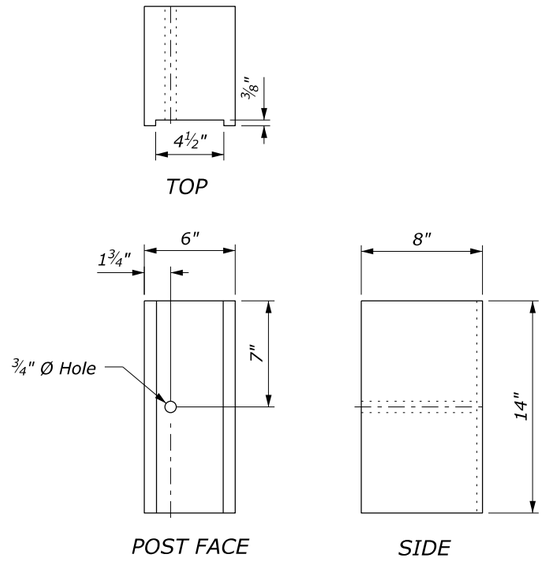



ELEVATION

**BOX CULVERT POST**




**BOX CULVERT MGS GUARDRAIL STEEL POST**




**BLOCK**

See Note 2

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

CFLHD DETAIL

# MGS W-BEAM GUARDRAIL STEEL POSTS ATTACHED TO BOX CULVERT

DETAIL APPROVED FOR USE 02/2019
REVISED: 09/2021

DETAIL C617-38

7 September 2021 1:19 PM N:\CFL-DPIT_OpenRoads Designer Connect\Details\C617-38.dgn [C617-38]

# Notes to the Designer

**Updated September 2021**

**MGS W-Beam Guardrail Steel Posts Attached to Box Culvert**

**General Information**

- All graphics and text will be in the sheet model.
- **Appropriate Applications.**
  This drawing is used with box culverts with shallow fill.

| | |
|---|---|
| ***Crash Test Criteria*** | MASH |
| ***Test Level*** | TL-3 |
| ***FHWA Eligibility Letter*** | B-241 |
| ***TF 13 Designator*** | SBW09c |
| ***Crash Test Report*** | TTI Report No. 405160-23-2 |

*From TTI Report No. 405160-23-2*

- **Limitations.**
  Embankment over culvert ranges from 9” (min.) to 3’ (max.).
- **Layout Guidance.**
  See the FLH *Midwest Guardrail System FAQ* document for more information.

**Applicable SCRs**

- Section 563 (if weathering agent applied to galvanized elements)
- Section 617
- Section 710
- Section 725 (if weathering agent applied to galvanized elements)

**Typical Pay Item Used**

- 61701-4500 Guardrail system MGS, type 2, class A steel posts [LNFT] for galvanized steel
- 61701-5100 Guardrail system MGS, type 4, class B steel posts [LNFT] for weathering steel
  Note: Use the same pay item as roadside rail.

**Updates**

- **February 2019**
  - New Detail drawing
- **April 2020**
  Revised note 3, added note 4, minor CADD edits
- **September 2021**
  - Updated for OpenRoads Designer